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GENERAL ADMINISTRATION

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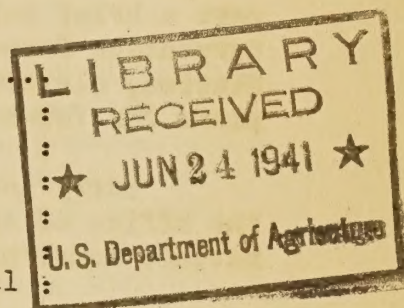
Dr. Knight Receives a Medal

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: On behalf of the American Institute of
: Chemists, Vice President Wallace presented a medal
: on May 17 to Dr. Knight. The occasion was the
: annual dinner of the Institute, held at the Wardman:
: Park Hotel, Washington, D. C. Doctor Knight is the:
: second Government scientist to be awarded the
: Institute's medal. Dr. William Blum of the U. S. :
: Bureau of Standards was awarded the first medal in :
: 1926. Since then the honor has been conferred on :
: thirteen men and one woman "for noteworthy and out-:
: standing service to the science of chemistry or the:
: profession of the chemist in America." :
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: The Institute made the award "in recognition:
: of Doctor Knight's outstanding accomplishments in :
: the field of agricultural chemistry, and his :
: executive and creative ability in organizing and :
: establishing the four Regional Research Labora- :
: tories recently authorized by Congress to search :
: for new and wider industrial outlets for farm :
: products. " :
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: On the face of the medal, made in the form :
: of a six-sided benzene ring known to all chemists, :
: is a representation of a chemist, open book before :
: him, flanked by symbols of laboratory and library. :
: In the lower half is lettered "The Truth will :
: Prevail." :
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H. T. Herrick received the honor of being initiated to membership in the Society of the Sigma Xi, Princeton Chapter, on May 12.

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NAVAL STORES RESEARCH

On April 15, C. F. Speh visited the plant of the Better Rosin Corporation, Cogdell, Ga., to attend a public demonstration of the operation of the jet turpentine condenser developed by the Naval Stores Station. The demonstration was attended by turpentine operators in the vicinity of Cogdell. On April 16, Mr. Speh attended the annual meeting of the American Turpentine Farmers Association at Valdosta, Ga., where he gave a brief talk on the work being done by this division to assist the turpentine farmers of the South. On April 17, he visited the Naval Stores Station, Olustee, Fla., to inspect the work of the Station and to discuss plans for future work.

Harry Lee Baker, formerly State Forester of Florida, called at the office of the Naval Stores Research Division on May 10, to discuss matters concerning naval stores farmers.

On May 2, J. O. Reed, Development Engineer in the Naval Stores Research Division, completed twenty-three years service in the Bureau. Ceremonies honoring the occasion were held and a suitable token of appreciation was presented to Mr. Reed by his co-workers.

On May 7 Professor Lenthall Wyman, Professor of Forestry, North Carolina State College, Raleigh, North Carolina, and 21 seniors in forestry, attended a demonstration at the Naval Stores Station on the developments to date. The students heard a discussion of the work of the Bureau in naval stores as developed in Washington and Olustee, by the Senior Chemist in Charge, and a discussion of cups and accessories by the Junior Chemist. Then they were taken to the plant laboratory and shown from boards and from the actual installations, the gum cleaning operation as carried out on a commercial scale. They were also shown the gum cleaning process on pilot plant scale. All temperatures, pressures and other variations were discussed as students asked questions.

During the afternoon session a history of gum buying and selling as developed in the State of Florida in particular was given, followed by a discussion of costs for producing barrels of gum by the fire still method, filtered gum and washing and cleaning methods. The program was finally concluded with discussion of the trends in naval stores.

U. S. Patent 2,239,555, Stable Rosin Acid, Rosin Ester, and Rosin Product Containing Them and a Method for Their Production, was issued to E. E. Fleck and S. Palkin, April 22, 1941.

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RURAL ELECTRIFICATION RESEARCH

Harry L. Garver spent the latter part of April in Georgia and Alabama inspecting work being done there under cooperative agreements between the Bureau and the University of Georgia, also between the Bureau and the Farm Security Administration. While there he conferred with regional officials of the Farm Security Administration upon the advisability of having O. A. Brown spend part of his time in each of the following areas: Irwinville, Ga. (where he is now stationed); Coffee Co., Ala.; Pine Mt. Valley, Ga.; Flint River, Ga.; and Cherry Lake, Fla. This matter came up in view of his experience with the electric brooding of chicks on low-income farms and the present program of the F.S.A. in encouraging farmers on resettlement areas and those on rehabilitation farms to raise more poultry.

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The Bureau's experiments with inexpensive methods of cooling eggs on farms and at local grading stations has attracted the attention of Rural Electrification Administration. Lee Prickett, of that organization, has been assigned the task of conducting demonstration projects in Virginia employing the methods used in the experiments. Insufficient data have been collected to justify unconditional recommendation of any one of the methods tried but results obtained thus far seem so promising that R.E.A. is desirous of trying one of them.

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Mr. Garver recently spent a week at the Virginia Polytechnic Institute, Blacksburg, Va., conducting a number of tests on electric water heating using wooden barrels instead of steel tanks. The barrels will not stand much pressure but are low in cost and have favorable insulation characteristics.

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AGRICULTURAL CHEMICAL RESEARCH

H. S. Paine, Chief of the Division, left Washington recently for a visit to the Bureau field stations in Mississippi, Louisiana, and Texas, where he will confer with members of the Bureau staff and cooperators regarding the Bureau's program of work concerning preservation of fruits and vegetables, cane sugar and by-products, sorgo sirup, sorgo sugar and by-products, and sweetpotatoes.

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Members of this Division attending the American Oil Chemists' Society Meeting, New Orleans, La., May 15-16, include Dr. Geo. S. Jamieson, A. F. Freeman, and C. E. Swift. Dr. Jamieson and Mr. Swift will also attend the National Cottonseed Products Association Meeting in New Orleans May 19-21.

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J. C. Keane of the Utah-Idaho Sugar Company, formerly a member of the Carbohydrate Research Division of this Bureau, was a recent visitor.

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DOCTOR VINNIE ARAH PEASE

Dr. Vinnie A. Pease died on April 30, in Washington, D. C. Miss Pease came to the Bureau of Chemistry (now the Bureau of Agricultural Chemistry and Engineering) in 1920 as a micro-analyst. In recent years failing eyesight obliged her gradually to relinquish research work on the microscopy of food, in which she had won a reputation.

Dr. Pease ranked highly among the women who have held important scientific positions in Government service. She was a member of the American Association of University Women and served for a number of years as secretary of the local chapter of the national scientific society Sigma Xi. She is survived by her aged mother, Mrs. Clara Pease, residing temporarily in Takoma Park, Maryland.

Miss Pease was born at Blue Earth, Minn., Dec. 6, 1881, and obtained her B.S. degree in 1907 from the College of Puget Sound, Tacoma, Washington. After six years of public school work and a year's teaching of physics in the St. Nicholas School for Girls in Seattle, she won a teaching fellowship at the University of Washington, from which she obtained her M.S. degree in 1916. Returning then to her native state she served three years as teaching fellow and graduate assistant in botany at the University of Minnesota, which awarded her a Ph. D. degree in 1919.

E. R. Root, President of the A.I. Root Company of Medina, Ohio, and Dean among the leaders of the American beekeeping industry, visited the Division recently to confer with H. S. Paine and G. P. Walton regarding the Bureau's honey investigations. He showed keen interest in the experimental tests under way and took a number of photographs of the laboratory for reproduction in "Gleanings in Bee Culture," of which he is Senior Editor.

A trip was made by Dr. F. H. Thurber, from the Laurel, Miss., field station to points in the States of Missouri and Illinois, for the purpose of conferring with manufacturers of starch modifying and blending equipment to determine practicability of its use in connection with the dehydration of sweetpotatoes in the production of starch.

Dr. Harry E. Goresline and Harlow H. Hall of the Microbiology Section visited the Raleigh, N.C., field station and the State Agricultural Experiment Station at Raleigh to confer with officials regarding the preservation of green feeds through fermentation.

In the course of a trip to the West Coast, Dr. Goresline will visit egg-breaking plants and laboratories in St. Louis, Missouri, Kansas City, Mo., Los Angeles, Calif., Portland, Oreg., Omaha, Nebr., and Des Moines, Iowa. He will also confer with officials of the Los Angeles Fruit and Vegetable Laboratory, the Western Regional Research Laboratory, Albany, Calif., and the University of California, at Berkeley. On his return to Washington Dr. Goresline will attend the meeting of the Institute of Food Technologist at Pittsburgh, Pa., and will present a paper entitled "Practical Bacteriology Applied to Plant Sanitation."

J. L. Heid, who was in charge of the U. S. Fruit and Vegetable Products Laboratory at Weslaco, Texas, has resigned to take a position with the California Citrus Juice Exchange, at Santa Ana., Calif.

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EASTERN REGIONAL RESEARCH LABORATORY

Dr. T. L. McMeekin, Senior Chemist of the Protein Division, attended the meeting of the American Society of Biological Chemists held in Chicago, Ill. April 15-19.

Director P. A. Wells, accompanied by H. T. Herrick, Assistant Chief of Bureau, conferred with research directors and other officials of several meat packing companies in Chicago and vicinity during the period April 17-22. While in the Middle West, Dr. Herrick and Dr. Wells stopped at Peoria, and conferred with officials of the Northern Laboratory.

Dr. R. H. Gerke of the U. S. Rubber Company addressed members of the Eastern Laboratory staff on April 29 on the subject of selecting technical personnel. Dr. Gerke emphasized the type of questions asked candidates when being considered for technical research positions with the U. S. Rubber Company.

N. E. Carr, Mechanical Superintendent, spent the week of April 19-25 in Washington, D. C. conferring with officials of the Bureau of Mines and with the Technical Advisory Board of the Department of Agriculture.

R. E. Lothrop, Technical Assistant to the Director, delivered a talk on May 1 before the Newtown, Pa., High School on the subject "Research on the Utilization of Farm Products."

On May 9, Dr. Knight and Mr. Herrick met in Philadelphia with the directors of the sixteen eastern state experiment stations that comprise the eastern regional area. Dr. J. T. Jardine, Chief, Office of Experiment Stations and Director of Research of the Department of Agriculture, and Dr. R. Y. Winters, Assistant Director of Research of the Department were also present at these conferences. After the business sessions were over, an inspection of the laboratory facilities and equipment was made by those attending the meeting.

Together with Dr. D. M. Crooks, Chief, and A. F. Sievers, Senior Bio-chemist, of the Division of Drug and Related Plants of the Bureau of Plant Industry, Ralph W. Frey, Chief of the Hides, Tanning Materials, and Leather Division, visited Geo. A. Kerr at Trevilians, Va., on April 25 to discuss with him in detail plans for experimental plantings of domestic sumac on his farm. The leaves of many sumacs are rich in tannin and this plant is being studied for its possibilities as a tannin crop.

R. W. Frey spent May 9 and 10 in Philadelphia attending the conferences of the State Experiment Station directors held at the Eastern Regional Laboratory, and conferring with the director and officials of the Eastern Laboratory. During the experiment station directors' conference, Mr. Frey discussed the work of his Division.

Geo. P. Wolf, Business Manager, attended the conference of the Business Managers of the four regional laboratories held in Washington, D.C., during the week of April 14.

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NORTHERN REGIONAL RESEARCH LABORATORY

Benjamin Tabenkin attended the meetings of the American Society of Biological Chemists at Chicago.

Carl E. Rist conferred with officials of the Corn Products Refining Company at Pekin, Ill., regarding starch manufacturing equipment in connection with the research program of the Starch and Dextrose Division.

Dr. Reid T. Milner has been appointed Chief of the Analytical and Physical Chemical Division by transfer from the Regional Soybean Industrial Products Laboratory at Urbana, of which he was Director. He received his B.S. and M.S. degrees from the University of Illinois, and his Ph. D. degree from the University of California. Prior to his association with the soybean laboratory Dr. Milner had been employed at the Bureau of Mines, and in the Bureau of Chemistry and Soils in Washington.

Dr. Cyril D. Evans has been appointed Associate Chemist in the Oil and Protein Division. He received his B.S. and M.S. Degrees from Montana State College, and his Ph. D. degree from the University of Minnesota. Dr. Evans was formerly a member of the faculty at the University of Minnesota, and has been employed by the Armour Institute of Technology.

Dr. Robert D. Coghill went to Iowa City, Iowa, to acquire cultures of Aerobacter and similar organisms and to obtain information pertinent to the research program of the Fermentation Division.

John J. Curtis was in Glasford, Hanna City, and Havana, Ill., to locate sources of hybrid and other corn samples, and to arrange for obtaining samples of corn for use in the research program of the Commodity Development Division.

Dr. C. T. Langford and Dr. R. L. Whistler held conferences with officials of starch manufacturing companies in Columbus Ohio and with members of the faculty of Ohio State University with reference to the research program of the Engineering and Development and the Starch and Dextrose Divisions.

Dr. Whistler and Dr. Ivan A. Wolff held similar conferences in Indianapolis, Ind., and at Purdue University.

Harry E. Roethe discussed the Northern Laboratory at recent meetings of the Science Club of Peoria Central High School; the Science Club of Woodruff High School, Peoria; the Community Club of Mason City; the Agricultural Evening School of Lexington,; and the Exchange Club, Galesburg. He also was the principal speaker at the annual men's banquet of Old Lincoln School, Peoria.

Dr. Kenneth B. Raper, Dr. Andrew J. Moyer, and Dr. L. J. Wickerham conferred with staff members of the Department of Bacteriology at the University of Wisconsin regarding certain fermentations, and arranged for obtaining certain microorganisms for the culture collections of the Fermentation Division.

Dr. Richard Wiebe and James C. Porter inspected motor testing equipment at the Waukesha Motor Company, Waukesha, Wis., of the type similar to that which will be purchased for use in the research work of the Agricultural Motor Fuels Division.

Dr. P. A. Wells, Director of the Eastern Laboratory, conferred with Doctor May and other members of the staff of the Northern Laboratory.

S. T. Schicktanz and J. R. Dilley held conferences with officials of the Vulcan Copper and Supply Company, Cincinnati, Ohio, concerning the erection drawings and the fabrication of the distillation equipment for the alcohol pilot plant.

The following groups were recently taken on a personally conducted tour of the Laboratory; The chemistry class of Canton, Ill., High School; farm advisers, assistants, and their wives, from Peoria and neighboring counties; Women's Auxiliary of the Illinois Osteopathic Association; the chemistry class of the Eureka, Ill., high school.

Dr. Berrell Althausen and Julian W. Nash conferred with Dr. V. I. Komarewsky of the Illinois Institute of Technology, Chicago, regarding the research work of the Agricultural Residues Division.

John E. Shultz, Associate Chemist, Agricultural Motor Fuels Division, has been transferred to the Tennessee Valley Authority. He left Peoria on May 14 to take up his new duties at Wilson Dam, Ala.

T. O. Cannon, Resident Engineer, conferred with Bureau officials in Washington regarding specifications for the completion of the chemical laboratory section of the industrial wing of the Laboratory.

Dr. O. E. May was in Washington to attend the meeting of the Defense Commission as a Bureau representative.

J. H. Shollenberger was in Lexington, Ky., to investigate a new process in milling for incorporating the wheat embryo in flour. In Washington, D. C., he conferred with Bureau of Plant Industry officials regarding requirements for samples of grain and agricultural residues of the 1941 crop, and with officials of the Bureau of Agricultural Chemistry and Engineering of the Department regarding the research program of the Commodity Development Division.

The Agricultural Experiment Station Relations Committee of the north central region held their annual meeting at the Laboratory on April 21. Also in attendance were Dr. Henry G. Knight, Chief, and H. T. Herrick, Assistant Chief of the Bureau, Dr. James T. Jardine, Chief, and Director of Research, Office of Experiment Stations, and Dr. R. Y. Winters, Assistant Director of Research, Office of Experiments Stations. At the close of the meeting, which was devoted largely to a discussion of the research projects which have been set up, a tour of inspection of the Laboratory was made.

Dr. O. E. May and Dr. R. T. Milner conferred with members of the staff of the Soybean Laboratory and of the University of Illinois, at Urbana.

A W. P. A. project for improvement of the Laboratory site has been approved. The total cost of the project is \$35,635 of which the sponsor's funds amount to \$14,335 and Federal funds \$21,300. The project involves improvement of grounds; constructing drives, sidewalks, curbs, gutters, and parking lot; installing storm sewers and catch basins; landscaping, seeding, and planting trees. It is expected that the project will be under way the latter part of May.

Dr. M. J. Copley, Chief of the Analytical and Physical Chemical Division of the Eastern Laboratory and Dr. H. D. Lightbody, Chief of the Biochemical Division of the Western Laboratory, visited the Laboratory and conferred with various members of the staff.

Dr. G. E. Hilbert visited the Keever Starch Company at Columbus, Ohio; the Cluett-Peabody Company at Troy, N.Y., the American Writing Paper Company, and the Whiting Paper Company, at Holyoke, Mass., and the Boston and New York Offices of the Stein-Hall Company. He learned that the production of wheat starch has remained stationary, while that of rice starch has increased; research is under way on the modification of physical-chemical properties of corn starch pointing to the replacement of tapioca starch by corn starch for various uses; and the American Writing Paper Co., has used several hundred pounds of cotton for the production of paper which

Dr. Hilbert also conferred with members of the staff of the Massachusetts Institute of Technology, at Boston, with members of the staff of the Eastern Laboratory at Philadelphia, and in Washington with members of the National Institute of Health, the staff of the Fertilizer Research Division of the Bureau of Plant Industry, and with officials of the Bureau.

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SOUTHERN REGIONAL RESEARCH LABORATORY

The meeting of the National Cotton Consumption Council held at the Roosevelt Hotel, New Orleans, on Tuesday, April 29, was attended by members of the Cotton Chemical Finishing, Cotton Fiber Research, and Cotton Processing Divisions. Promotional plans for Cotton Week to be held throughout the country from May 16 to May 24 were outlined and discussed. The importance of increasing the domestic consumption of cotton through new and extended uses was emphasized.

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On April 23, Dr. Walter M. Scott conferred with members of the Faculty at the A. French Textile School, Atlanta, Ga., concerning the proposed program of research for the Cotton Chemical Finishing Division.

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John T. Gibbons has been appointed Senior Chemist in charge of the Additive Finishing Section in the Cotton Chemical Finishing Division. Mr. Gibbons received his B. S. degree from Worcester Polytechnic Institute. He was for many years in charge of the finishing research for Joseph Bancroft and Sons Co., and has recently been acting as a consultant to the textile industry on finishing problems.

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Miss Louise A. Charbonnet has been appointed Assistant Scientific Aide in the Cotton Chemical Finishing Division. Miss Charbonnet received her B.A. degree at Newcomb College and received her M.S. degree from Tulane University.

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Theodore Savich, Chicagoan, previously with Phillips Petroleum Co., Bartlesville, Okla., has reported for duty in the capacity of Junior Chemist. Carl Hamalainen, former member of the staff of the Agricultural Experiment Station, College Station, Texas has been appointed Junior Chemist. Mr. Hamalainen has his M.S. degree from the University of Minnesota and is a native of Duluth. Both Mr. Savich and Mr. Hamalainen were assigned to the Cotton Fiber Research Division.

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William Fiedler, Jr., has been appointed Assistant Chemist in the Oil, Fat and Protein Division. Mr. Fiedler received his B.S. in Chemistry and M.S. in Chemistry at Union College, Schenectady, N.Y. Prior to his appointment he has been an analytical chemist with Remington-Rand, an instructor in chemistry at Union College, and a research chemist for the American Cyanamid and Chemical Corporation and for Sinclair Refining Co.

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Joseph Pominski has been appointed Junior Chemical Engineer in the Engineering & Development Division. Mr. Pominski was transferred to this laboratory from the Federal Security Agency. He received his B.S. degree in 1935, from Louisiana State University.

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R. J. Cheatham, Chief of the Cotton Processing Division, attended the annual meeting of the International Cotton Advisory Committee in Washington on April 11 and presented a paper entitled "Cotton Research Program of the Southern Regional Research Laboratory." Mr. Cheatham remained in Washington through April 19 for the purpose of supervising projects dealing with the use of cotton in the "ational Defense Program."

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Robert B. Evans returned on April 27 from Washington, D. C., where he spent some time assisting with the projects dealing with the use of cotton in the National Defense Program.

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A Mason DuPre', Jr., left on May 3 for Clemson College, Clemson, S.C., and Washington, D. C., to assist with the work on projects dealing with the use of cotton in the National Defense Program.

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Charles L. Sens, Cotton Processing Division, spent May 5-7, in Atlanta, Ga., conferring with representatives of the Universal Winder Co., Whittin Machine Works, Saco-Lowell Shops, and Draper Corporation, relative to specifications of machinery for the textile laboratory.

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Dr. Nandor Porges reported for duty in New Orleans, May 6 as Associate Bacteriologist in the Sweetpotato Products Division. Dr. Porges was transferred to the Southern Laboratory from the Agricultural By-products Laboratory at Ames, Iowa. Dr. Porges has been working in Washington for the past several months on a special assignment.

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On May 10, Dr. F. H. Thurber and Dr. W. O. Gordon, of the Carbohydrate Research Division stationed at Laurel, Miss., and W. M. Crumpton, Manager of the Laurel Starch Plant, Laurel, Miss., were in the laboratory for a conference with the staff of the Sweetpotato Products Division.

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The organization meeting of the Safety Committee was held on May 1, E. A. Gastrock being designated Chairman. Mr. Lynch spoke to the Committee about the responsibility for safety resting not only upon the Safety Committee or the person or persons immediately involved, but upon the entire personnel of the laboratory. Discussions and suggestions were brought up at the meeting and specific duties were assigned.

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On April 28, and 29, E. A. Gastrock attended a meeting of the Regional Planning Advisory Committee, South Central Region, National Resources Planning Board, in Dallas, Texas, representing D.F.J. Lynch.

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At the annual meeting of the American Oil Chemists' Society, held in New Orleans May 15 to 16, Dr. Klare S. Markley was elected Vice-President of the Society.

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WESTERN REGIONAL RESEARCH LABORATORY

A conference between the State Experiment Station Directors of the eleven Western States and Department of Agriculture officials was held at the Laboratory on April 25 and 26, for the purpose of considering research programs and other related problems of mutual interest. All but one of the eleven Western States were represented at this conference. Dr. H. G. Knight, H. T. Herrick, and Dr. R. Y. Winters attended from Washington, D. C.

Dr. C. H. Kunsman, Chief of the Physicochemical and Analytical Division, has been reappointed a member of the Council of Applied Physics of the American Institute of Physics. The Council is concerned with the applications of the science of physics.

A. P. Aanestad has returned to Albany after a trip to Washington where he attended a conference of regional laboratory business managers.

On April 26, about 50 members of the California Hay, Grain, and Feed Dealers Association, who were holding their annual convention in San Francisco, visited the laboratory and were shown through the building.

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ENZYME RESEARCH LABORATORY

Dr. A. K. Balls, Head Chemist of the Bureau's Enzyme Laboratory, was elected secretary of the American Society of Biological Chemists at the Society's recent annual meeting at Chicago.. The Society, established in 1906, has a membership of about 500. Dr. Balls' address as secretary is 3123 South Building, Washington, D. C.

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PROCESSING OF FARM PRODUCTS RESEARCH

Fiber Flax:

According to W. M. Hurst, fiber flax acreage in Oregon for the 1941 crop will exceed that of any previous year. Two new mills are under construction, the capacity of each of the four existing mills has been increased by the addition of new retting tanks and, in several instances, new storage sheds. As a result of this expansion of the industry a local firm has contracted for the production of about 30 flax pullers for June delivery. Incidentally, these machines are of the type introduced by the Bureau in 1939.

Machines introduced or constructed by the Bureau which will be ready for experimental use on the 1941 crop are as follows: three pullers, three deseeders, two scutchers, three double band trussers, two bundle elevators and three tow shakers.

On April 19, members of the local chapter of the American Society of Mechanical Engineers visited the shop at Corvallis and our staff members demonstrated several pieces of new equipment. At an evening meeting W. M. Hurst showed slides illustrating flax mill machinery and operations and led a discussion on these subjects.

Recent visitors at the Corvallis shop included G. A. Cumings, Mechanical Equipment Division; members of the Oregon Flax & Linen Board, and members of the recently formed farm cooperatives for processing flax at Harrisburg and St. Paul.

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DIVISION OF PLANS AND SERVICE

For the first time in the history of the Association of Federal Architects, the Department of Agriculture has been honored in supplying a president of the Association, composed of architects employed by the Federal Government. This distinction has been bestowed upon Henry A. Magnuson, of the Division of Plans and Service at the annual banquet and election of officers on April 28. Two other members of the Division were also honored. I. C. Miller was elected secretary and L. C. Darnet was elected to serve on the Board of Directors of the Association for a term of three years. Robert J. Dodge of the Division of Farm Structures is also a director of the Association.

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PROTEIN AND NUTRITION RESEARCH

Dr. D. Breese Jones attended the annual meeting of the Federation of American Societies for Experimental Biology, held at Chicago, April 15 to 19. The Federation includes the American Society of Biological Chemists and the American Institute of Nutrition.

Dr. Jones presented two papers. One, entitled "Isolation of Lanthionine from Various Proteins," was read at the regular meeting of the American Institute of Nutrition, and the other, "Effect of Heat Upon the Nutritive Value of Proteins," was given at a symposium on nutrition.

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FARM MECHANICAL EQUIPMENT RESEARCH

Planting operations of the cooperative fertilizer-placement experiments were conducted on cotton in North Carolina, cotton and soybeans in Mississippi, and tomatoes in Maryland and Virginia.

Considerable interest has been shown recently by manufacturers in the improvement of one-horse fertilizer distributors and combination cotton planter and distributors as used in the cotton belt. Four new machines mostly in the experimental stage were developed during the last year. Three of these machines were represented in an experiment performed in

North Carolina to determine the relative merits of each machine as well as their performance characteristics. The Bureau included in this experiment, one commercial distributor in which soil tools for depositing fertilizer in two bands were developed. The additional cost of the machine with the improved band placement would be a very small sum.

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During the month representatives of two local insecticide and fungicide custom dusting companies, the Great Lakes Dusting Company, Findlay, Ohio, and W. J. Rupp and Son, Wauseon, Ohio, visited the Toledo Station for specific information and advice on crop dusters. These two companies do custom dusting of sugar beets and canning tomatoes in Ohio, Indiana and Michigan and hold contracts for dusting approximately 40,000 acres this season.

Other visitors at the Toledo Station during the past month were; H. B. Eringhouse, Findlay, Ohio, and W. C. Griffin, San Francisco, Calif., representatives of the California Packing Corporation; H. R. Collard, Kenosha, Wis. and J. H. Gilger, Swanton, Ohio, representatives of the Campbell Soup Co.; J. F. Olsterlund, Tobacco By-Products and Chemical Corporation, Louisville, Ky.; Dr. J. H. Lilly, entomologist, University of Wisconsin, Madison, Wis.; W. K. Fuestel of the R. T. Vanderbilt Co., New York City; Mr. Sargent of the Great Lakes Sugar Company, Detroit, Mich.; and O. L. Nixon of the Ruhm Phosphate Company, Mt. Pleasant, Tenn.

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The Tillage Machinery Laboratory in cooperation with the Soil Conservation Service has planted corn, cotton, and Sudan grass on an area of Government owned land near Tuskegee, Ala. These crops will be used for developing and testing tillage machinery designed for "mulch culture" practices.

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A series of comparative draft tests of disks with plain and roller bearings has been completed at the Laboratory. These tests showed that the type of bearing had no appreciable influence on the draft of the disk. In another series of tests, soil reactions on a disk with inside beveled cutting edge were compared with those on a disk with outside beveled edge. The disk with inside beveled edge showed the lighter draft and better penetration but a greater side thrust.

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J. W. Randolph reports the Bureau's cooperation with the Mississippi Agricultural Experiment Station concerning experiments to determine more profitable cultural practices in growing sweetpotatoes. The Bureau's studies of growing and harvesting machinery have found ways of using tillage machinery to reduce farm labor shortage. An attachment to a one-row tractor has been found to be efficient in transplanting in small cuts and on hillsides. The time required to attach or remove this unit from the tractor gives an advantage to the cart-type transplanter. This unit, made with two-row equipment pulled by a tractor equipped with standard bedding and fertilizer attachments, is under test on a large acreage. The third machine similar to the tractor unit is adapted for the use of the small mule

farmer. This one-row unit is equipped with a simple fertilizer distributor. The last two transplanters are made from old auto parts, etc., that might be obtained by a small machine shop and assembled at low cost.

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R. B. Gray and A. T. Holman were in eastern North Carolina May 1 to 3, studying power and mechanical equipment problems on the farm operations of the Farm Security Administration. The operations include a total area of more than 10,000 acres near Lake Phelps in Washington and Tyrell Counties. The farms include a large number of homestead units where individuals purchase and operate the small farms of about 50 acres each. There are two large mutual cooperative farms. The larger cooperative includes crop and livestock operations on about 3,000 acres of crop land. Most of the principal operations have been mechanized using modern tractors, attached planters and cultivators, combines, corn pickers and various types of modern machinery. The study is being made at the request of the Farm Security Administration. Recommendations are being prepared by the Division of Mechanical Equipment concerning the selection, adjustment, care and use of power and machinery for the purpose of increasing the operating efficiency on the several farms included in the project. It is planned to obtain cost records and the data necessary to determine the duty or capacity of the various types of machines under existing field operating conditions.

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ALLERGEN INVESTIGATIONS

On April 16, Dr. Joseph R. spies conferred with Dr. Arthur Stull at the Allergy Clinic of the Roosevelt Hospital in New York City, New York.

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Dr. Henry Stevens, Harry S. Bernton, Joseph R. Spies and E. J. Coulson attended the meetings of the Society for the Study of Asthma and Allied Conditions which were held in Atlantic City, New Jersey, on May 3.

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PUBLICATIONS APPEARING OUTSIDE THE DEPARTMENT

- BALLS, A. K., GOTTSHALL, G.Y. and KIES, M.W. Autolysis in meat (abstract) Amer. Soc. Biol. Chem. Proc. vol. 9, April 15-19, 1941.
- BEAVENS, E. A. (With C. S. PEDERSON, senior author, and H. G. BEATTIE, N.Y. State Agr. Expt. Sta.) Results of a demonstration sale of apple-raspberry juice. Fruit Prods. Jour. & Amer. Vinegar Indus. 20(8): 227-228 and 247, April, 1941.
- BENNETT, C. A. Better ginning by repairing gins. Cotton & Cotton Oil Press 42(9): 5 & 20, April, 1941.
- BROTHER, G. H., SUTTLE, W. C. and MCKINNEY, L.L. A simple flexure testing machine for plastics. ASTM Bul. (109): 13-16, March, 1941.
- DEEDS, F. and THOMAS, J. O. Studies on phenothiazine. IX. The biliary excretion and anthelmintic action of thionol. Jour. of Parasitology 27(2): 143-151, April, 1941.
- GOESLINE, H. E., CURL, A. L., BEAVENS, E. A. (With C. S. PEDERSON, senior author, N. Y. State Agr. Expt. Sta.) Keeping quality of bottled wines - effect of head space. Indus. Engin. Chem. 33(3): 304-307, March, 1941.
- GOSS, W. H. Modern practice in solvent extraction. Chem. & Metall. Engin. 48(4): 80-84, April, 1941.
- HUMPHRIES, W. R. (With H. E. BESLEY,) N.J. Agri. Expt. Sta. (Ag. Eng.) 22(4) Apr. 1941. Machines designed for harvesting and storing grass silage.
- LYONS, W. J. Crystal density of native cellulose. Jour. Chem. Physics 9 (4): 377-378, April, 1941.
- SHAW, W. L. The library of the western regional research laboratory. Spec. Libr. Assoc. San Francisco Bay Chapter Bul. 11(7): 3-4, April, 1941.
- STEWART, H. W. and WHEELER, D. H. The melting points of binary mixtures of oleic, linoleic, and linolenic acids. Oil & Soap 18(4): 69-71, April, 1941.
- STUART, L. S. and FREY, R. W. Curing skins with salt containing sodium carbonate or sodium sulfate. Jour. of Amer. Leather Chem. Assoc. 36(3): 114-120, March, 1941.
- VAN ARSDEL, W. B. The Western regional laboratory for research on the utilization of farm products. Procs. Calif. Agr. Econ. Conf. at Stockton, Calif., Dec. 17 and 18, 1940 (State of Calif. Dept. of Agr. Bulletin) 30(1): 18-22.
- WILSON, R. G., De EDS, F. (With A. J. COX, JR., Stanford Univ.) Effects of continued cadmium feeding. Jour. Pharmacol. and Expt. Ther. 71(3): 222-235, March, 1941.

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CHANGES IN PERSONNEL

Recent Appointments - Indefinite or Probationary

Frank J. Arrotta	Clerk	Adm. Services Div.
Elfrieda Egbert	Sr. Operative (Asst. Bookkeeper)	" " "
Mrs. Kathryn N. Prater	Jr. Stenographer	" " "
Charles A. Everett	Unskilled Laborer (Uncl)	
	(Laurel, Miss.)	Agr. Chem. Res. Div.
Mrs. Martha P. Rodgers	Under Scientific Helper	
	(Los Angeles, Calif)	" " "
Eugene Harrison	Jr. Laborer (Unskilled) (Uncl)	
	(Weslaco, Texas.)	" " "
	(Weslaco, Texas.)	" " "
Mrs. Dorothy Seagraves	Jr. Steno. (Raleigh, N.C.)	
W. Carmen Jefcoat	Unskilled Laborer (Uncl) (Laurel, Miss)	Farm Mech. Equip.
J. Bruce Liljedahl	Agent (F.C.) (Ames, Iowa)	Farm. Struc. Res. Div.
Frank Zuerner	Junior Clerk (Madison, Wisc.)	" " "
Frederick T. Beebe	Assoc. Arch Engr. (Estimates)	Plans and Service
Sam Schub	Asst. Arch. Engr. (Estimates)	" " "
Virginia Ruth Ehler	Jr. Clerk-Stenog. (Urbana, Ill.)	Reg. Soybean Lab.
Victor R. Gardner	Collaborator (E. Lansing, Mich.)	" " "
James R. Angelotti	Asst. Messenger	East. Reg. Res. Lab.
Sidney D. Brody	Asst. Messenger	" " "
Morton J. Dash	Minor Laboratory Helper	" " "
Festy Heaney	Sr. Stat. Boiler Fireman	" " "
Joseph C. Karl	Sr. Stat. Boiler Fireman	" " "
Donald M. Mortimore	Asst. Scientific Aide	" " "
Joseph Reynolds	Sr. Stat. Boiler Fireman	" " "
James Siciliano	Minor Laboratory Helper	" " "
Patrick Walsh	Unskilled Laborer (Uncl)	" " "
Oscar A. Bertrang	Unskilled Laborer (Uncl)	North. " " "
Edward W. Duffy	Under Scientific Aide	" " " "
Cyril D. Evans	Associate Chemist	" " " "
Travis Foley	Unskilled Laborer (Cleaner) (Uncl)	" " " "
John E. Hodge	Asst. Scientific Aide	" " " "
John E. Jackson	Asst. Scientific Aide	" " " "
Ralph H. Manley	Sr. Chemist	" " " "
James S. Moore	Unskilled Laborer (Uncl)	" " " "
Donald L. Reed	Assoc. Chem. Engineer	" " " "
Joseph E. Ruckman	Asst. Scientific Aide	" " " "
Ralph C. Thomason	Under Scientific Aide	" " " "
John W. Wood	Unskilled Laborer (Uncl)	" " " "
Warren J. Calhoun	Sr. Stat. Boiler Fireman	South. " " "
Louise H. Charbonnet	Asst. Scientific Aide	" " " "
Henry J. Clement	Skilled Laborer	" " " "
William Fiedler, Jr.	Assistant Chemist	" " " "
John B. Fitch	Asst. Engineering Aide	" " " "
John T. Gibbons	Sr. Cotton Technologist	" " " "
Carl Hamalainen	Junior Chemist	" " " "
Lee Roy Hartley	Senior Guard	" " " "
Henry F. Kinsley	Sr. Operating Engineer	" " " "
William J. Lagarde	Assistant Messenger	" " " "
Joseph H. Laurent	Senior Carpenter	" " " "

Recent Appointments - Indefinite or Probationary (Continued)

Oswald P. Lewis	Janitor	South. Reg. Res. Lab.
John Bennett May	Skilled Laborer (Oiler)	" " " "
Joseph Pominski	Jr. Chemical Engineer	" " " "
Henry D. Rice	Sr. Operating Engineer	" " " "
Theodore R. Savich	Junior Chemist	" " " "
Gerald A. Ballou	Asst. Chemist	West. " " "
Vernon A. Bergfeld	Janitor	" " " "
Emanuel Bickoff	Jr. Scientific Aide	" " " "
Garret Brokaw	Unskilled Laborer (Uncl)	" " " "
Heber D. Butler	Unskilled Laborer (Cleaner)(Uncl)"	" " " "
William C. Dietrich	Asst. Scientific Aide	" " " "
John M. Dockham	Unskilled Laborer(Cleaner)(Uncl)"	" " " "
Mrs. Lyla B. Duey	Jr. Clerk-Stenographer	" " " "
Harry L. Fevold	Senior Biochemist	" " " "
Funston G. Lum	Under Laboratory Helper	" " " "
Dale K. Mecham	Assistant Chemist	" " " "
H. Woodard Nelson, Jr.	Electrician's Helper	" " " "
Kenneth J. Palmer	Associate Chemist	" " " "
Hugo C. Wildschut	Jr. Scientific Aide	" " " "
Walter Van Sandt	Jr. Scientific Aide	" " " "

Recent Appointments - Temporary

Margaret M. Brown	Senior Stenographer(Budget Section)Adm.Services Div.
Earl J. Daly	Clerk (Auditor) (Audit Section) " " "
Mary Alice Dandridge	Jr. Clerk-Stenographer (Ag.Chem.Res)" " "
Maxine E. Hinton	Jr. Clerk-Stenographer(Farm Struct.)" " "
Lucille C. Johnston	Junior Stenog. (R.R.L.-Admin) " " "
Elizabeth L. Lanham	Jr. Clerk-Stenog.(Misc.Ser.& Records) " " "
Eunice B. Lockhart	" " " (Plans and Service) " " "
Clifford H. Billett	Sr. Photographer(Stoneville, Miss.) Cotton Ginning Inv.
Wm. H. DeLaVergne	Electrical Engineer Rural Elec. Res.
Mrs. Goldie A. Bruce	Under Clerk-Typist North. Reg. Res. Lab.
Byron L. Chambers	Sr. Foreman of Laborers West. " " "
Betty Rosenberg	Jr. Library Assistant " " " "

Separations

Mrs. Augusta M. Diven	Sr. Bkbp. Machine Operator (To. S.C.S.)	Adm. Ser. Div. Bkbp. Sec.
Martha M. Stiefel	Jr. Clerk-Typist (to Wash. Navy Yard)	Adm. Ser. Div.
Robert T. Livingston	Laborer (Laurel, Miss.)	Agr. Chem. Res. Div.
Margaret H. Mask	Jr. Stenog. (Raleigh, N.C.)	" " " "
Vinnie A. Pease	Assoc. Microscopist (Deceased)	" " " "
Wm. B. Blankenship	Unskilled Laborer(Stoneville, Miss.)	Cotton Ginning Inv.
Oscar N. Shivers	Agent(F.C.) (Madison, Wisc.)	Farm Struc. Res. Div.
Karl Edwin Venneberg Jr.	Field Aide (Hays, Kansas)	" " " "

Mrs. Martha F. Randolph	Senior Stenographer	Naval Stores Res. Div.
Charles R. Bardes	Mechanical Engineer (To Federal Works Agency, Public Build. Administration)	Plans and Service
Frieda Harper	Junior Stenographer (To Beltsville Research Center)	" " "
Wm. J. Kracklauer	Assoc. Mechanical Engineer	" " "
Robert S. Loney	Assoc. Architect (To Farm Security Administration)	" " "
Nicholas Stadtfeld	Asst. Electrical Engineer (To Panama Canal Service)	" " "
Florence T. Odell	Asst. Clerk-Stenog. (Urbana, Ill)	Reg. Soybean Lab.
George Hamer	Unskilled Laborer	East. Reg. Res. Lab.
Anthony Lettieri	Carpenter's Helper (To War Dept)	" " " "
Julian L. Staubly	Asst. Scientific Aide	" " " "
Edward A. Fritz	Senior Electrician	North. Reg. Res. Lab.
Clarence E. Griffin	Jr. Engineering Aide	" " " "
Robert P. Newton, Jr.	Asst. Chemical Engineer	South. " " "
Alfred H. Klemmick	Senior Stat. Boiler Fireman	West. " " "

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